

MINUTES
CALIFORNIA TRAFFIC CONTROL DEVICES COMMITTEE (CTCDC)
MEETING
September 27, 2001 in the City of Sacramento

The third meeting of the CTCDC in 2001 was held in the California Department of Food and Agriculture Auditorium, in Sacramento, on September 27, 2001.

Chairman Ray Mellen opened the meeting at 9:00 a.m. with the introduction of members and guests. The following members, alternates, and guests were in attendance:

ATTENDANCE Members (Voting)	ORGANIZATION	TELEPHONE
Ray Mellen Chairman	Auto Club Southern California,	(714) 885-2301
Jim Larsen Vice Chairman	CA State Association of Counties County of Tulare	(559) 733-6291
Gerry Meis	Caltrans	(916) 654-4551
Ike Iketani	CHP	(916) 657-7222
Wayne Tanda	League of CA Cities City of San Jose	(408) 277-4945
Merry Banks	California State Automobile Association, Auto Club	(415) 565-2297
Farhad Mansourian	CA State Association of Counties County of Marin	(415) 499-6570
John Fisher	League of CA Cities City of Los Angeles	(213) 580-1189

ALTERNATES	ORGANIZATION	TELEPHONE
Richard Backus	Auto Club Southern California	(714) 885-2326
Mark Greenwood	League of CA Cities	(760) 776-6450
Jacob Babico	City of Palm Desert	
	CA State Association of Counties	(909) 387 8186
Ed von Borstel	San Bernardino County	
	League of CA Cities	(209) 579-5266
	City of Modesto	
Dwight Ku	California State Automobile Association, Auto Club	(415) 241-8904

ATTENDEES	ORGANIZATION	TELEPHONE
Bill Wald	Caltrans HQ-ITS	(916) 651-9048
John Walker	LA County Public Works	(626) 300-4700
Leeann Preece	FHWA	(916) 414-2320
Peter Lai	CPUC	(213) 576-7087
Richard Skaff	Mayor's Office on Disability, SF	(415) 554-6786
Doug Spencer	Fortel Traffic, Inc	(831) 636-7800
Bill Stredter	Traffic Safety Corp.	(916) 394-9884
Hall Garfield	Consultant	(916) 487-2869
Dale Jones	BlinkerStop/TAPCO	(805) 541-5475
Jerry Williams	BlinkerStop/TAPCO	(559) 627-1995
Lance Heide	Napa County	(707) 944-0196
John Shurson	BNSF Ry. Co.	(909) 386-4470
Hector Valdeptna	BNSF Ry. Co.	(909) 386-4472
Johnny Bhullar	Caltrans/Traffic Ops	(916) 654-7312
Michael M	Div. Of State of Architect	(916) 322-4700
Amit Kothari	City of Oakland	(510) 238-3469
Michael Harrison	LightGuard System, INC	(707) 542-4547
John Hoxie	Caltrans Legal	(916) 654-2630
Theresa Gabriel	Caltrans HQ-ITS	(916) 6545653
Courtney Martin	Parsons Transp. Group	(626) 440-6100
Lee Ward	Parsons Transp. Group	(626) 440-6100
Matt Schmitz	FHWA	(916) 498-5850
Reh-Lin Chen	City of Berkley	(510) 981-6403
	1947 Center St, CA 94704	
Jerry WachTel	The Veridian Group, Inc	(510) 848-0250
	567 Panorama, Berkeley, CA 94704	
Dennis Anderson	3M	(800) 933-9985
Keith Owens	LA World Airport, City of LA	(310) 428-5417
Ed Campbell	Polara Engineering	(707) 428-5417
	Traffic Safety	

MINUTES

Adoption of June 7, 2001 CTCDC meeting minutes.

MOTION: Moved by Jim Larsen, seconded by Wayne Tanda, to adopt the minutes of the San Diego meeting, held on June 7, 2001. Motion carried 8-0.

MEMBERSHIP

Ray Mellen informed the Committee that today's meeting would be his last meeting as a CTCDC member because his responsibilities with the Auto Club have changed. Gerry Meis presented a plaque to Ray Mellen on behalf of the CTCDC and thanked Ray for his services provided to the Committee since 1989. Mr. John Squier has retired and is replaced by Mr. Jacob Babico as the alternate member representing the California State Association of Counties in the southern half of the State.

ELECTION OF OFFICERS

MOTION: By Wayne Tanda, second by Merry Banks, to elect Jim Larsen as Chairman of the CTCDC. Motion carried 8-0.

MOTION: By Ray Mellen, second by Wayne Tanda, to elect John Fisher as Vice Chairman of the CTCDC. Motion carried 8-0.

00-4 USE OF RAISED PAVEMENT MARKERS FOR TRANSVERSE PLACEMENT

Ray Mellen stated that during the last meeting Caltrans promised to address the use of raised reflective markers on the right edgeline. This issue was raised by Committee member John Fisher at an earlier meeting. Ray asked Gerry Meis to address this item. Gerry advised the Committee members that there is a new draft version in your packet, which is different from the draft sent out with the agenda packet. Gerry noted that John Fisher wanted to clarify the reason not to use retroreflective raised pavement markers (RPMs) on right edgelines. Therefore, in the new draft the third sentence states, "The use of retroreflective RPMs at the right edgeline may lead the motorist to believe that there is another lane."

Gerry said the proposed draft is as follows:

Raised pavement markers are intended to be used as a positioning guide or to supplement or substitute for pavement markings. An exception to this is retroreflective raised pavement markers shall not be used for right edgelines. The use of reflective RPMs at the right edgeline may lead the motorist to believe that there is another lane. Non-reflective raised pavement markers should not be used for right edgelines unless an engineering study documents the reasons for their use.

(continued)

Gerry further advised that the existing paragraph two would be modified as follows:

~~For State highways, appropriate pavement delineation patterns shall be selected from those alternate details showing either painted traffic lines with raised reflective pavement markers or raised pavement markers to simulate painted lines. See Figures 6-1 through 6-12.~~

Ray Mellen noted that the proposed text should not create liability issues for agencies that have used retroreflective RPMs at right edgelines in the past. John Fisher responded that even without the edited explanation, the draft does not allow the placement of retroreflective markers at right edgelines. The explanation would be helpful to traffic engineers to better understand the reasoning behind not allowing the use of retroreflective RPMs at the right edgeline.

Farhad Mansourian advised the Committee members that in Marin County some cities have used retroreflective RPMs at the right edgelines. Farhad further stated that based on their experience, they work very well in foggy conditions and where there is an embankment/or steep drop-off next to the traveled way. Jim Larsen advised the use of reflective delineators in lieu of the RPMs.

Ray Mellen suggested that the item be continued to the next CTCDC meeting and that Gerry Meis would work with Committee members in reaching consensus on the language. Wayne Tanda pointed out a letter written to the Committee members by a consultant indicating that the State of Hawaii uses RPMs at right edgelines. Wayne further pointed out that some devices have warrants justifying their installation, such as the Stop sign, while others do not. The proposed text as presented could be used to delineate cross walks with RPMs, in lieu of the paint or thermoplastic strips.

Ike Iketani noted that the use of RPMs to delineate crosswalks might be unsafe to motorcyclists, bicyclists, and pedestrians.

Richard Skaff from the audience stated that the use of RPMs to delineate crosswalks would be unsafe for pedestrians, wheelchair pedestrians and visually impaired pedestrians. Gene Lozano also from the audience, expressed that RPMs are not as visible to motorists as paints/or thermoplastic strips. In addition, visually impaired pedestrians could trip on the RPMs.

Michael Mankin, Chief of Access Compliance Policy, Division of the State Architect, pointed out to Committee members that there are items on the Agenda that are under the jurisdiction of the State Architect. Michael suggested reviewing the jurisdiction of the Division of the State Architect, prior to making decision on these items.

Farhad Mansourian asked Michael, if the State Architect has jurisdiction over public roadways. Michael responded that it is a shared ownership. Ray Mellen advised that since Michael raised an issue related to some of the agenda items, Caltrans should come to the next CTCDC meeting with an understanding about the role of the Division of the State Architect.

(continued)

Wayne Tanda suggested that the Department should come up with a resolution about the role of the Committee as well as the role of the State Architect, on "Official Traffic Control Devices" used on roadways.

Action: Item to be continued

01-5 ACCESSIBLE PEDESTRIAN SIGNALS

Ray Mellen noted that the Accessible Pedestrian Signals (APs) agenda item is a continuation from the last meeting and asked sponsor John Fisher to address this item. John noted that during the Santa Cruz CTCDC meeting (2/15/2001), the Committee approved experimentation with APs, which are already adopted at the national level and are included in the Millennium MUTCD 2000. John suggested adopting the MUTCD 2000 language into the State Traffic Manual, which will allow public agencies to install APs based on the need of the visually impaired community. John advised that the adoption of the MUTCD standards does not prevent further changes as new technology becomes available, and this could be updated as required. John stated that the APs were adopted in to the MUTCD 2000 after extensive discussion and research, and with involvement of experts from the visually impaired community.

Gerry Meis stated that the MUTCD on APs gives options to public agencies and allows them to pick and choose different system features. He wants to know if the Committee wants this for California. Gerry also asked Polara Engineering whether there is any significant cost difference between installing one of the features versus installing all available features. Ed Campbell, Polara Engineering, informed the Committee that the cost difference is minimal.

Wayne Tanda pointed out the information received from Gene Lozano representing the California Council of the Blind. Wayne stated that Gene has very specific suggestions for the selection of the system and also suggested five alternatives for the system.

Farhad Mansourian noted that, during the last CTCDC meeting, visually impaired participants raised three specific questions in regards to system consistency, the system that serves the blind community, and allowing the use of new technology as it becomes available.

Gene Lozano stated that when discussing Section 4E.06, Accessible Pedestrian Signals, it must be discussed in the context of what is provided in Sections 4E.07, Pedestrian Detectors, and 4E.08, Accessible Pedestrian Signal Detectors. Sections 4E.06, 4E.07 and 4E.08 lack many significant and valuable points that are covered in the Access Board PROWAAC. There are areas in these two documents in which they are in harmony. There are some points that are covered in one document, but not in the other and some points that are mandatory in one document, but are optional in the other. The relevant sections of both documents need to be assimilated into one revised section in the next edition of the California Traffic Manual. (continued)

Gene noted that Section 4E.06, on the first page, second support, and second paragraph reads "Local organizations, providing support services to pedestrians who have visual and/or hearing disabilities, can often act as important advisors to the traffic engineer when consideration is being given to the installation of devices to assist such pedestrians." It should read "Local organizations, providing support services to pedestrians who have visual and/or hearing disabilities, can often act as important advisors to the traffic engineer when consideration is being given to the type of accessible pedestrian signals to be installed to assist such pedestrians."

The first page, second support, second paragraph, second sentence reads "Additionally, orientation and mobility specialists or similar professional staff also might be able to provide a wide range of advice. Instead, this should read: "Additionally, Association for the Education and Rehabilitation for the Blind and Visually Impaired (AER) certified orientation and mobility specialists or similar professional staff should also be contacted to obtain a wide range of advice."

Gene further outlined the following features that should be required for accessible pedestrian signals (APS) in the State of California:

1. All APSs (including the overhead type) must have an auditory tone to announce the WALK interval. The auditory tone is to be limited to two options: a) "Cuckoo" walk sound for a crosswalk in the North-South direction and a "Peep-Peep" walk sound for a crosswalk in the East-West direction"; or
- b) Verbal messages to communicate the walk interval that provides a clear message that the walk interval is in effect, as well as to which crossing it applies.
2. All APSs (including the overhead type) must have vibrotactile devices to indicate that the walk interval is in effect, and for which direction it applies, through the use of a vibrating directional arrow or some other means.
3. All APSs' (including the overhead type) auditory tone and vibrotactile devices are to be automatically activated by pushing the pedestrian push button without a long button press.
4. All APSs (including the overhead type) must have a pedestrian push button with the locator tone.
5. All Pedestrian push buttons that activate an APS must be marked with a universal tactile and visual symbol that identifies that there is an APS at the crossing.

Gene advised the Committee that these five minimum APS features are to be considered unofficial until he can take them to the California Council of the Blind (CCB) membership at the Fall convention (November 1st - 4th, 2001) to receive the organization's official approval. However, these minimum APS features were compiled from an informal survey by CCB members who are knowledgeable about APS technologies.

Richard Skaff pointed out that the American with Disabilities Act (ADA) mandates that all new construction or rehabilitation after 1992 must accommodate ADA requirements. Richard noted that mid-block crosswalks are not accessible to visually impaired pedestrians.

(continued)

He further expressed that the countdown signal heads experimentation authorized by this Committee would not be compliant with ADA. Richard also stated that pedestrian push buttons do not have stripes, which is required by ADA guidelines.

Ray Mellen thanked Richard Skaff for his comments. Farhad Mansourian suggested that the Committee wait for the final language from FHWA on APSs and then make a decision. Jim Larsen agreed with Farhad and noted that this would give the Committee the opportunity to review suggestions on APSs recommended by the CCB, which is meeting during the first week of November.

John Fisher stated that the question raised by Richard Skaff about the pedestrian push button is addressed in the Millennium MUTCD 2000. John advocated that the Committee move forward and adopt the MUTCD language on APSs, and indicated that future changes could be incorporated in the State Traffic Manual, as new and proven technology becomes available. Ray Mellen asked for other comments from the Committee members and the audience. There were none.

MOTION: Moved by John Fisher, seconded by Gerry Meis, to adopt the MUTCD 2000 language on Accessible Pedestrian Signals into the State Traffic Manual.

Ray asked for discussion on the motion. Wayne Tanda stated that Gene Lozano has very specific language for this Committee to consider and he would like to discuss Gene's suggestions. Wayne also pointed out the five points raised by Gene in regards to standardization.

Farhad noted that Gene's proposal makes five mandatory requirements, when the MUTCD allow options. Gene advised the Committee that when a public agency decides to install APSs, they should get input from a certified blind and mobility instructor to decide which system would be suitable for individuals and for the community. The engineering staff should not make the decision solely, because they do not have expertise in this field.

John Fisher pointed out that the proposed verbiage presented to the Committee would not be significantly different from the final verbiage. Ray Mellen, Jim Larsen and Farhad Mansourian suggested, although the final verbiage would not significantly differ from the verbiage included in the agenda packet, they would like to see the final language from the FHWA before making their decision.

Wayne Tanda suggested that since the California Counsel of the Blind is scheduled to meet during the first week of November 2001, he would prefer to wait and see the Counsel's recommendation on this matter. Meanwhile, the FHWA would likely publish final language.

Motion failed 4-4. Ray Mellen, Jim Larsen, Farhad Mansourian and Wayne Tanda voted against the motion.

Action: Ray recommended placing this item on the next CTCDC meeting agenda.

01-6 SUPPLEMENT SIGNS ON CHANNELIZER

Ray Mellen advised the Committee that this item is a continuation from the last meeting and asked John Fisher to update the Committee. John Fisher stated that during the last CTCDC meeting, there were some concerns raised by Committee members on the proposed amendment to the State Traffic Manual. There is a revised draft in Committee member's packet, which incorporates comments made during the last CTCDC meeting. John further advised the Committee that his agency has performed limited impact tests on spring-mounted channelizers with small mounted signs and that they spring back after multiple vehicle impacts. The devices were tested between speeds of 30 to 40-mph. The following language is proposed to be added to Section 4-01.27:

When needed for emphasis, small plastic signs not exceeding 12 inches in width may be mounted on channelizers, cones or portable delineators placed on lane lines and/or centerlines. When installed, they shall supplement permanently mounted standard signs and shall use standard legends, sign color and retroreflectivity, but in a smaller, proportional format.

The following language is proposed to be deleted from Section 10-03.4:

Portable school signs (except hand-held units for adult crossing guards, school safety patrols, and school bus drivers) shall not be placed within the roadway any time.

Wayne Tanda stated that when the City of San Jose conducted an experiment on these devices 15-years ago, the conclusion was not to place these devices on lane lines. The City used these devices in school zones with the message "Slow" on a first cone and "School" on a second cone. The reason behind not placing these devices on lane lines was that if a motorcyclist passes a big truck or a sport utility vehicle in the same lane, upon seeing these devices, the driver could make a potentially unsafe maneuver which could lead to an accident. Wayne asked John if his jurisdiction has had any similar experiences with these devices.

John Fisher responded that his agency has used small signs inserted into traffic cones during special events to reinforce the prohibition of turns and to allow optional turns. In addition, his agency has used them for a reversible lane operation. Occasionally, errant vehicles have struck them, but these types of collisions have not resulted in injuries to occupants.

Ray Mellen asked for other comments from Committee members and the audience. Matt Schmitz, FHWA, asked John Fisher if he has concerns about the speed limit, size of the device and the weight of the device to be placed. Matt informed the Committee that there is a proposal to amend the MUTCD 2000 to include these types of devices/signs in the national Manual. It is premature to speculate on the exact verbiage, but it has been discussed and other agencies would get the opportunity to review it in the near future. Matt further elaborated that the current version of the MUTCD does not allow signs in the traveled way and the FHWA only supports those devices which have been found to be crashworthy.

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John asked Matt about the status of the amendment to include these devices in the MUTCD. Do the changes include what is being discussed today? Matt responded that November is the original date to publish the errata, although it might slip. He said he did not have specific knowledge of the proposal or whether it will include the concept being discussed today. Ray Mellen stated that it is fair to say that the MUTCD will incorporate similar devices. Matt responded that it is fair to say that the MUTCD would include similar devices, but he is not sure whether that which John Fisher is proposing will be included in the MUTCD.

John Fisher stated that currently the MUTCD is silent on the use of these types of devices. Currently, local agencies are using these devices without guidance as to format and application. Thus, it would be beneficial to consider them as traffic control devices so as to facilitate uniformity.

Wayne Tanda suggested two changes to John's proposal. First, these devices should be used on the roadways with speed limits of 35 mph or less to enhance pedestrian safety. Second, if the devices are proposed for installation on lane lines, an engineering study must be conducted to analyze the potential conflict during a lane change. John agreed with Wayne's comments, but suggested using the words "traffic safety" instead of "pedestrian safety". Wayne agreed.

Motion: Moved by John Fisher, seconded by Farhad Mansourian, "When needed for emphasis to facilitate traffic safety on streets with speed limits of 35 miles per hour or less, small plastic signs not exceeding 12 inches in width may be mounted on channelizers, cones or portable delineators to be placed on lane lines and/or centerlines. When installed, they shall supplement permanently mounted standard signs and shall use standard legends, sign colors and retroreflectivity, but in a smaller, proportional format. If the device is used on lane lines, there must be an engineering study, which documents the limited potential of the device to be struck due to lane changing."

Motion passed 7-1. Gerry Meis voted against the motion.

Action: Item Completed.

01-9 IN-ROADWAY WARNING LIGHTS AT R/R CROSSINGS

Ray Mellen advised the Committee that in-roadway warning lights (IRWLs) at R/R crossings is a outgrowth of the California Public Utility Commission (CPUC) requesting authorization to experiment with these devices at R/R crossings. Ray asked the sponsor Gerry Meis to introduce the item. Gerry Meis invited Peter Lai, CPUC representative to address the Committee. Peter informed the Committee that last year the CPUC received a grant from the Office of Traffic Safety to enhance safety at R/R crossings. Peter further informed the Committee that Kern County and the City of Paramount have signed the required documentation to participate in this experimentation. Peter advised the Committee that these devices would be supplemental to the standard flashing beacons. Peter submitted a letter signed by Kern County. (continued)

Gerry Meis expressed that he would like to see the CPUC first get approval from the FHWA for the experimentation. Gerry added that he believes the implementation of these devices will have a national impact. Gerry added that the Committee could give conditional approval for experimentation subject to the FHWA approval.

Peter responded that an application has been filed with the FHWA, requesting authorization for experimentation. Ray asked Matt Schmitz if he would like to add any information. Matt stated that he does not see any reason for delay in receiving authorization for the experimentation. Matt further stated that there is a proposal to amend the MUTCD to address these devices.

Farhad Mansourian stated that this might be an excellent opportunity to learn about the FHWA experiment approval process. Ray Mellen asked the representative from the R/R Company if he would like to add input on the proposal. John Shurson, Assistant Director of Public Projects (BNSF Ry. Co.) stated that he supports this experiment and his company wants to be a partner in this experimentation. John further added that the locations picked by Peter are excellent for the experimentation. In addition, John requested the Committee to authorize the CPUC experimentation.

Ray Mellen asked for comments from Committee members and the audience. Theresa Gabriel asked what driver reactions are expected when they see these lights blinking. Is the need to flash this device identified in the DMV handbook or in the Vehicle Code? Ike Iketani stated that these devices are a supplement to the standard devices, therefore, they are not enforceable.

Jacob Babico inquired whether IRWLs at R/R crossings would be supplemented to the automated gates. Peter responded that the device would not be installed where there is a gate.

Motion: Moved by Farhad Mansourian, seconded by Merry Banks, to authorize experimentation with IRWLs at R/R crossings subject to the FHWA approval. Motion passed 8-0.

Farhad requested that the Committee be updated during the next meeting by the CPUC/FHWA on the status of the FHWA experimentation approval.

01-10 RED FLAGS USE AT PEDESTRAIN CROSSWALKS

Ray Mellen asked sponsor Wayne Tanda to introduce this agenda item. Wayne introduced Reh - Lin Chen, City of Berkeley, and advised that there are two issues that confront the Committee. First, whether the flags presented today are a traffic control device, and second, if it is not a traffic control device, then how would the City of Berkeley proceed with this proposal?

Reh – Lin Chen stated that the City of Berkeley is becoming increasingly frustrated by the increase in traffic incidents involving pedestrians. (continued)

It is difficult for pedestrians to be seen by drivers when they cross the streets. The City believes that there is a need to enhance pedestrian safety. Reh informed the Committee that one of their Council members has visited Salt Lake City and observed a brilliant idea, which was used to improve pedestrian safety. Flags were provided to the pedestrians for use when crossing roadways. The City Council of Berkeley advised the Public Works Director to implement a similar program in the City of Berkeley. The City has initiated the program to provide flags to pedestrians to increase their visibility while they cross streets. This program was implemented on City streets and was planned for expansion to Ashby Avenue, which is under the jurisdiction of Caltrans. Caltrans advised the City to approach the CTCDC for guidance on the use of pedestrian flags on Ashby Avenue (State Route 13). This is the reason the City asked the Committee for approval to implement the pedestrian safety program.

Ray Mellen asked Reh Chin, if he was present when Richard Skaff and Gene Lozano made Comments on the use of flags by pedestrians while crossing the roadways. Reh responded that he was present during the comments made by Gene Lozano, but he was not present when Richard Skaff made his comments. Ray Mellen stated that both Richard and Gene strongly opposed the use of flags, because handicap, wheelchair and visually impaired pedestrians cannot use flags and therefore it is not equal access. It is a violation of the ADA compliance.

Reh Chen responded that to improve the accessibility to people in wheelchairs, the top of the flag storage container would not be installed higher than two and one-half feet. Reh added that although the City offers flags to pedestrians for visibility, they are not obligated to carry the flags while they are crossing a street. Reh informed the Committee that the Salt Lake City study indicated that only 14% of pedestrians carried the flags and the other 86% used their own judgement while they crossed the roadway. This means that the majority of pedestrians preferred to use their own judgement.

Farhad Mansourian pointed out that the two proposed locations have traffic signals and he questions the validity of using flags at signalized intersections. Reh responded that there is a heavy right turn movement and traffic turn right on red. Ray Mellen asked if the City has tried other options at signalized intersections, such as prohibiting a right turn on red. Ray Chin responded that they have not.

John Fisher stated that the use of red flags in both the Federal Manual and the State Traffic Manual is strictly reserved for work zone or detour-related traffic operations. Reh Chin stated that he did not understand why the title of his request was red flags, when the flags the City proposed for use were an orange color. Reh further added that one of the reasons for using the color orange was because they are more affordable. Ultimately, the City planned to use a lime yellow-green color.

Ray Mellen asked Reh Chin if it was fair to say that the color would be chosen based on the price. Ray further stated that the color and shape of the proposed flag is an issue, since the color orange is used in work zones. Wayne Tanda expressed that the issue is whether or not the flag presented to the Committee is a traffic control device. (continued)

If this is a traffic control device, then it falls under the preview of the Committee to find out whether this is an appropriate use. Gerry Meis pointed out the Sections from the MUTCD and the Traffic Manual which contain the verbiage on the use of red flags.

Matt Schmitz, FHWA, informed the Committee that two years ago this matter was discussed by the FHWA at the request of the State of Oregon DOT. At that time, FHWA responded that flags are used for work zones on low speed and low volume roadways. The FHWA also concluded that a flag is a traffic control device. The use of flags, other than in work zones, would be in violation of the proper use of the device. Matt further added that the use of a flag by pedestrians could cause a false sense of security, as studies over studies have repeatedly indicated that painted crosswalks without traffic control devices lead to a false sense of security.

Jacob Babico asked how this flag system would work. If pedestrians pick up a flag and cross a roadway, what will they do with the flag? Would there be a crossing guard? Reh Chen responded that a container filled with six flags would be placed at each street corner or crosswalk's end. Pedestrians would pick up a flag, cross the roadway and place the flag in the container at that side of the corner. Reh Chen invited Jerry WachTel to address the Committee.

Jerry WachTel stated that he is a sociologist by profession and ran a research lab for the FHWA for 12 years. Jerry said he is assisting the City of Berkeley on this project. The City has considered the bright yellow-green color, but flags are not available in this color at this time. The questions raised today by this Committee are interesting, and the City plans to address all these questions in its pre and post study.

Ike Iketani asked Matt if the MUTCD makes reference to the size and shape of flags used in work zones. Devinder Singh, Secretary of the Committee, pointed out sections of the MUTCD and the State Traffic Manual, which refer to the size and shape of flags used in work zones. John Fisher stated that, Salt Lake City, Portland and the City of Kirkland have used flags, and now that the City of Berkeley wants to use them. In his opinion, this should be a national issue and not a California issue. Therefore, the request for experimentation should be a part of a FHWA study.

There was a lengthy discussion among Committee members before reaching a conclusion that the flag use presented to the Committee is a traffic control device, and it is not appropriate to use at pedestrian crossings. The Committee further concluded that if the City of Berkley chooses an alternate device, which does not look like a flag, then the City may not need approval from this Committee. Committee members further added that they encourage the City's efforts to enhance pedestrian and traffic safety. However, the City should use a pedestrian visibility device which does not resemble a flag.

Ray Mellen asked for comments from the audience. Matt Schmitz noted that although the flag presented today has an orange color, it is still a traffic control device and is not in compliance with standard devices.

(continued)

Motion: Moved by Wayne Tanda, seconded by Jim Larsen, the flags presented to the Committee appear to be a traffic control device used for work zones, therefore, the experimentation request is denied.

Ray Mellen asked for discussion on the motion. Jerry WachTel informed the Committee that he has reviewed data prepared by other cities on the use of flags at pedestrian crossings and none of these had prepared a detailed study. The City of Berkeley promised to gather pre and post data in detail. WachTel further added that if the Committee recommends a different color and approves the experimentation, the City would follow through with a study.

Ray Mellen responded that if the City chooses a different device, which does not look like a flag, the City may not need approval from this Committee.

Reh Chin expressed that the reason the City approached the Committee was that the City wants to expand the program to Ashby Avenue, which is a State highway. He added that the City could still use flags on City streets. Ray Mellen suggested verifying this statement with the City's Attorney.
Motion passed 7-0.

Wayne Tanda stated for the record that the City of Berkeley could use a device that does not resemble a flag. In that case, the City may not need approval from this Committee. Wayne and Ray further suggested that if the City chooses to go ahead with some other device, which does not simulate a traffic control device, the City should publish the results of its findings, stating whether the device was proven successful or not. These results would be helpful for other public agencies.

01-11 PORTABLE OR TEMPORARY SPEED DISPLAY SIGN

Ray Mellen introduced the next agenda item "portable or temporary speed display sign" and asked sponsor John Fisher to apprise the Committee. John stated that the City of Palm Desert was asking the Committee whether the placement of a radar speed display sign on public roadways is appropriate. John invited Mark Greenwood, City of Palm Desert, to address the Committee. Mark advised the Committee that a number of local agencies are considering its use or have been using portable speed display signs. The City of Palm Desert requested the Committee's opinion whether this device could be used on public roadways.

Gerry Meis noted that this Committee had addressed the color of the radar speed display trailer two years ago, and it was unanimously recommended that the color red should not be used for the speed display. He further noted that he does not recall if this Committee was ever involved in the development and adoption of the Changeable Message Sign (CMS) standards. John Fisher stated that the question before the Committee is, whether the sign is a traffic control device and could be used without experimentation. Gerry added that this is a type of CMS. (continued)

Gerry asked Theresa Gabriel if Caltrans has standards for CMSs. Theresa responded that CMSs are under Transportation Electrical Equipment Specifications (TEES Manual) and Portable Changeable Message Signs (PCMSs) are covered in Caltrans Standard Specifications under Section 12-3.12.

Farhad Mansourian inquired if the Federal Manual addresses CMSs. John Fisher stated that there is a Section in the Federal Manual that talks about CMSs. **For clarification to readers, Section 2A.07 (CMSs) of the 2000 MUTCD discusses CMSs and also states that a CMS is a traffic control device.**

Jacob Babico told the Committee that they have tested similar signs with smaller sizes and they were shown to be ineffective. He recommended a study with the larger size sign. Jacob further added that in his opinion the speed display sign is similar to the W6 advisory sign.

Wayne Tanda noted that in his opinion the sign is not a traffic control device because it does not regulate or guide traffic. Therefore, it is not in the purview of this body. John Fisher did not agree with Wayne's opinion. Jim Larsen advised that this Committee was silent on the trailer radar speed display sign issue, and his opinion is that the Committee should take the same approach on this issue.

Ike Iketani stated that the speed trailer sign could be moved easily from place to place, whereas this sign is not movable. He further stated that the trailer speed sign is informative and is in demand. Ray Mellen asked for comments from the audience. There were none.

Motion: Moved by Jim Larsen, seconded by Wayne Tanda, the portable sign presented to this Committee is not a traffic control device.

Ray Mellen asked for discussion on the motion. John Fisher stated that this sign provides information to the motorists and therefore it is a traffic control device. If the Committee concludes that this is not a traffic control device, then there likely would be a lack of uniformity as to appearance and application of portable speed CMS signs. John further stated that there is a demand for this device, particularly, in school zones. It would be helpful to local agencies if the Committee recommended standardization of the sign.

Mark Greenwood stated that many jurisdictions are currently using this type of sign. He offered that if the City of Palm Desert placed this sign on a public roadway, they would provide the pre and post data to the Committee. Gerry Meis offered that Caltrans would research the Department's record to find information on CMSs and PCMSs and update the Committee during the next meeting. This will be placed as an informational item on the agenda. Ray Mellen agreed with Gerry's remarks.

Motion failed by 4-4.

Action: Item completed. The Department will review the MUTCD 2000, CTCDC record and other available material and update the Committee during the next meeting.

01-12 BLINKERSTOP SIGN

Ray Mellen introduced the next agenda item BlinkerStop sign and asked Gerry Meis to address this item. Gerry Meis moved to the lectern and stated that he is requesting approval from the Committee to test the BlinkerStop sign on behalf of Caltrans Districts. Gerry advised the Committee that the locations have been identified and the BlinkerStop representatives have supplied a list to all the Committee members. Gerry further stated that if the device is proven a success, then there might be uses for the sign in areas such as where there are foggy conditions or where power is not available.

John Fisher inquired whether the BlinkerStop sign would be tested against Stop signs supplemented with flashing beacons. Gerry responded that at this point, the plan is to test against a standard stop sign, but there could be a location where it could be tested against a stop sign supplemented with a flashing beacon. Jim Larsen stated that his jurisdiction might be able to find a location to compare the BlinkerStop sign with a stop sign supplemented with a flashing beacon.

Farhad Mansourian and Wayne Tanda stated that they would not be able to find a location where the BlinkerStop sign would be tested against a stop sign supplemented with a flashing beacon. Farhad stated that his agency would test against the standard Stop sign. Ray Mellen questioned the location proposed by Caltrans District 9 Office. Dale Jones responded that there is a heavy right turn coming out from the rest stop parking lot causing rear-end type incidents. Ray suggested that the proper solution for those conditions would be to provide an acceleration lane. Ray Mellen asked for other comments from Committee members and the audience. There were none.

Motion: Moved by Wayne Tanda, seconded by Farhad Mansourian, to approve the authorization for experimentation with the BlinkerStop sign as requested by Caltrans. If other agencies, that are not on the list submitted to the Committee would like to proceed with an experiment, they must notify the CTCDC Secretary in writing.

Motion carried 6-1. Gerry Meis abstained.

The other agencies that received approval along with Caltrans were Marin County and Tulare County.

Action: Item Completed

01-13 USE OF NON-STANDARD TRAFFIC ROADWAY SIGNS FOR THE LOS ANGELES AIRPORT

Ray Mellen asked Gerry Meis to address this item. Gerry Meis invited representatives from the Los Angeles World Airports (LAX) to address their request for experimentation to the Committee.

Keith Ownes, LAX, briefed the Committee about their overall project improvement, including a new comprehensive signing program. (continued)

The proposal is to upgrade signs on Sepulveda Boulevard (State Route 1) and Century Boulevard (Los Angeles City Street) to be consistent with the airport signing.

Lee Ward and Courtney Bartin, Parsons Transportation Group, presented an overview of existing signing and proposed signing. Lee stated that under the FAA advisory circular on airport signing and graphics, "the preparation and location of signing for terminal related roadways and thoroughfares should comply with the Federal Highway Administration's 'Manual on Uniform Traffic Control Devices' (MUTCD) for Streets and Highways." The presentation showed the locations and placement of existing signs and where some of signs were placed on the pavement due to the recent temporary closures of the terminal and parking lots. Lee also explained the current operating conditions at LAX.

Lee further added that the MUTCD provision does not support airport signing requirements. This proposal is to upgrade signs on public roadways that are in the immediate transition areas leading to the airport terminal facility. The proposed overhead and ground mounted signs will have "Black" letters on "Grey" background and a "Blue" background for "White Arrow" lane assignments on an experimental basis.

Ray Mellen noted that the proposal mentioned addressing conflicting signing. Ray asked Lee whether experimentation was needed to address conflicting signs. Second, was the federal experimental process considered? Ray further added that during the last CTCDC meeting, it was mentioned that the proposal is to standardize signing at all international airports. He asked whether any dialogue with other international airports, including California, has taken place, addressing this as a joint effort among airports. Lee responded that he has not considered the federal process, nor has he discussed the issue with other airport agencies.

Gerry Meis stated that he would not support other colors except those approved by the FHWA for guide signs. Gerry further added that if there is a need to improve the signing for airports, the issue should be discussed on the national level.

John Fisher stated that there are three questions confronting the Committee. First, whether there is a need to have a unique color. Second, whether this particular format would be easier for motorists to understand directions to their destination. Lastly, whether this would result in greater uniformity in airport signing.

Ray Mellen asked Matt Schmitz if he would like to comment from the FHWA perspective. Matt stated this is not the first time airport signing issues have been raised. At this point, the only color for guide signs on public roadways is "White on Green."

Lee stated he would be happy to work with FHWA and other airports. Lee added that realistically LAX's objective is to move traffic in and out of the airport facility, and in order to achieve this, LAX is willing to sit down and work with LA DOT and Caltrans

Jim Larsen pointed out that the handout provided by LAX contains a statement about the FAA Advisory Circular on the installation of Airport Signing and Graphics. (continued)

Therefore, if LAX wants to improve signing at airports and surrounding areas, they need to approach the FHWA. Lee responded that there is a FAA Advisory Circular on Airport signings but that does not provide enough guidance for the signing required for the airports.

Gerry Meis stated that he is willing to meet with LAX and FHWA to reach an agreement. John Fisher provided some background on the request by LAX and indicated that his office advised them that the standard color for guide signs is "White on Green", but that there is a process for experimentation of new ideas. John further indicated that he advised LAX that if there is a consensus among major national and international airports that there is a need to use different colors and formats for airport-related guide signing, then the FHWA should be approached regarding experimentation.

Ray Mellen noted that the Committee is leaning towards denying this request, since it should be addressed at the national level. This Committee should not interfere with the FAA Advisory Circular on the signing of airports.

Wayne Tanda stated that LAX could develop an interim signing program using current standards and for the long term, they need to work with FHWA in order to come up with standards for all airports. Ray Mellen asked for other comments from the Committee members and the audience. There were none.

Motion: Moved by Jim Larsen, seconded by Gerry Meis, to deny the request for experimentation by LAX and suggest that LA DOT, Caltrans and LAX discuss the transition signing to determine if agreement can be reached. Motion passed 6-1. John Fisher abstained.

Action: Item Completed

TABLED ITEMS

94-10 PEDESTRIAN COUNTDOWN SIGNAL HEADS

The committee suggested removing this item from agenda.

01-2 PROPOSAL TO EXPAND THE COMMITTEE

This item was discussed in a workshop held on August 26, 2001 with vendors, suppliers and manufacturers. The expansion of the Committee issue was brought to the CTCDC by vendors/suppliers. There was a lengthy discussion among the participants about the pros & cons in regards to expansion of the Committee. The Committee exists because Caltrans is required by law to consult with local agencies before adopting standards and specifications for official traffic control devices. It was suggested that having vendors/suppliers on the Committee might raise the issue of conflict of interest. Individuals who may not be satisfied with committee decisions could legally challenge the role of vendors/suppliers association with the CTCDC. (continued)

Because of the conflict of interest issue and the fact that California Vehicle Code Section 21400 requires consultation with local agencies not with vendors, the Committee did not find sufficient justification for expansion. However, participants were agreed that there may be a need to improve communications between industry and the Committee. In addition, participants agreed that industry plays a beneficial role when they provide input as a member of the public. The goal of both industry and this Committee is safety of motorists and roadway workers.

It was the consensus that the workshop discussion would improve communication between the Committee and vendors.

The Committee members also discussed, in the workshop, the role of the CTCDC after the adoption of the MUTCD with a California Supplement. There was consensus that the CTCDC role will continue for two reasons. One, the law requires Caltrans to consult with local agencies. Second, California wants to be proactive on experimentation of new technology available for traffic control devices. Committee members also briefly talked about the experimentation process and agreed that the Committee should encourage agencies or vendors to approach the FHWA for experimental approval.

NEXT MEETING

The next CTCDC meeting will be held on January 31, 2002 in San Bernardino.

ADJOURNMENT: The meeting was adjourned at 5 PM.